

ABSTRACT OF THE DISCLOSURE

Spreading factor (SF) estimation in a code division multiple access (CDMA) spread spectrum system where the SF of the data channel may change on a frame-by-frame basis to reflect a change in the data rate for each corresponding frame. The SF estimation methods despread the data channel for all possible SF values, perform maximal ratio combining (MRC) when resolved multipaths occur, take the absolute value of the MRC results, and average these absolute values over many symbol periods to obtain decision statistics for the various SF's. The SF estimation methods then post-process these decision statistics and make a SF decision.